

18. (Amended) The dilator of claim 18 wherein [a back cut extends into said truss from said concave opening near each location where a said extension is joined with remaining portions of said truss] said extensions in a said pair thereof each extend past at least some other portion provided therebetween of that said end region of which they are a part, and so extend substantially parallel to a direction oriented through said opposite ends of said truss to thereby form a primarily concave opening.

REMARKS

This communication is in response to the Action of June 29, 1994. In that Action, claims 1 through 16 were provisionally rejected for obviousness-type double patenting, and with claims 1 through 4, 8, 9, 11, 12 and 16 through 18 being rejected. Claims 5 through 7, 10, and 13 through 15 were objected to as being dependent on rejected claims but were otherwise allowable if the provisional rejection is overcome. The applicants have amended claims 5 and 10 to rewrite them in independent form, and have rewritten claims 17 and 18 to clarify them.

The Examiner first rejects claims 1 through 16 for obvious-type double patenting in view of the claims pending in a further U.S. application having Serial No. 08/048,589, now abandoned in favor of a further continuation application based thereon having Serial No. 08/183,916 filed on January 19, 1994 but with claims of similar scope, as was done in the preceding Examiner's Action. The Examiner again contends that although the claims in the present application and in the cited application are not identical, they are not patentably distinct from each other because the claims in each have the same elements renamed and rearranged as is contended in the preceding Action. In response, the applicants have pointed out that there is a limitation in claim 1, and so in the claims dependent thereon, involving the resilient means extending to the end edges of the two end regions which cannot be found in the application cited by the Examiner. Such a limitation clearly provides an element in the present claims that differs from any element of the claims in the cited application (or the continuation application based thereon). The Examiner has not responded specifically in the present Action to this showing by the applicants in the preceding amendment, but nevertheless, the applicants continue to maintain this situation clearly shows the rejected claims in this application to be distinct from those in the

cited application. As a result, the claims of the present application are unable to serve to extend the grant provided by the claims in that cited application should such claims be allowed and appear in an issued patent. Thus, the applicants respectfully submit that there is not basis upon which to maintain this rejection, and that the rejected claims should be allowable despite the claims present in the cited application and its continuation.

The Examiner then goes to object to the specification under 35 U.S.C. § 112 in not providing support for the invention as claimed in claims 17 and 18, and has further rejected claims 17 and 18 under 35 U.S.C. § 112 for being unsupported as a consequence. In making this objection and its corresponding rejection, the Examiner points to recitations of end surfaces and extensions surfaces as not being found in the specification. Although the word "surface" and its variants is not found in the specification in connection with the truss member ends and extensions, the word "side" and its variants were used in the specification in connection with these structures, and a dictionary definition of "sides" supports the use of surfaces as an alternative thereto. While the applicants thought this should be sufficient, the applicants have amended claims 17 and 18 to more clearly set forth the invention in the terms used in the specification by substituting the word "side" or its variants for the word "surface" or its variants. In addition, the applicants have attempted to clarify claim 17 by incorporating the "back cut" therein as the simpler structure, and placed in claim 18 the concave opening limitation along with further recitation to clarify what is meant. The applicants believe that these amendments to claims 17 and 18 should be sufficient to overcome both the objection and rejection.

The Examiner then goes on to reject claims 1, 2, 8, 9, 11 and 12 under 35 U.S.C. § 103 as being obvious in the face of U.S. Patent 1,292,083 to Sawyer. The Examiner supports this rejection by finding that the "mere replacement of edge connections for center connections is not of patentable significance given the lack of any unexpected result due therefrom." However, the substitution in the prior art Sawyer reference of an edge connection to a pad 5 thereof from the center connection thereto shown for spring member 7 would be most unexpected since that central connection results in the spring force being distributed with substantial radial symmetry by the pad to a user's skin therebelow to which it is adhered. A substituted edge

connection of spring 7 to a pad 5 will clearly result in a larger force being applied to the skin at the edge of that pad where such a spring connection would be made, and a significantly smaller force being applied to the skin on the opposite side of the pad so connected because of the angular rotation of the pad which would occur with that connection. The result would not only lead to there being a reduced area over which sufficient outward forces occurred on the nasal outer wall skin, but the sharp force gradient across that skin over the width of the pad 5 would be quite uncomfortable for the user. Thus, there is clearly no suggestion in the Sawyer reference of having the spring member therein connected anywhere near an edge of either of pads 5 intended for adherence to a user's nose during use of the dilator disclosed therein .

In the present invention, the resilient member is connected all across the base layer that is adhesively joined to a user's nose rather than being connected at a single site in an end region to thus give a relatively even distribution of force to the skin thereunder all the way to the very ends of the truss member. Not only does this design give a relatively even pulling across the entire nasal outer wall skin by the dilator of the present invention, but the design also permits fabrication of the dilators from continuous feed rolls of base member, resilient member and top member materials. There is no way for the pads 5 and spring 7 of the Sawyer reference dilator to be constructed in that manner whether there is intended to be either center connections or edge connections between the spring and the pads thereof. In these circumstances, the applicants respectfully submit there is nothing in the Sawyer reference even remotely suggesting the use of resilient members that extend over the entirety of each pad to reach the opposite ends thereof, and so claim 1 and the claims dependent thereon should clearly be allowable thereover.

The Examiner then goes to point to the "hooks" of the Sawyer reference in the first paragraph of the first column of page 2 thereof in connection with claims 8, 9, 11 and 12 which concern the nature of the end edges of the end regions to prevent the peeling of the base material from the user's nose based on certain geometrical characteristics of such end edges. As the Examiner has already acknowledged that spring 7 of the Sawyer reference is not disclosed at any edges of the adhesive-carrying pads 5, the applicants can see no connection between the hook ends of the Sawyer reference spring and the edges of the Sawyer reference pads. Clearly the

Sawyer reference pad edges do not meet the limitations of claims 8, 9, 11 and 12, and the nature of the ends of spring 7 that are connected to the centers of these pads would appear to be irrelevant with respect to these claims in that they have no bearing on whether or not the pads 5 would separate from the skin of a user once adhered thereto (which is not an issue for the Sawyer dilator since the pads are adhered so strongly to a user's skin as require a solvent to dislodge them). Thus, these claims should clearly be allowable in their own right in addition to their dependence on claim 1.

The Examiner goes on to reject claims 3, 4 and 16 under 35 U.S.C. § 103 as being obvious in the face of the Sawyer reference taken in view of U.S. Patent 5,022,389 to Brennan. However, the law with respect to use of combinations of references to reject claims is well known to require that there be some suggestion in the art of using the structures of the plural references together. There can be no such suggestion in the art for using the Sawyer reference dilator together with the Brennan splint stabilizer when the structure and purpose of one is clearly antagonist of the structure of the other, i.e., the Sawyer structure is used to pull the outer walls of a nose apart while the Brennan structure is used to squeeze the walls of the nose together. Use of one of the structures thus precludes use of the other, and clearly these claims should be allowable thereover in their own right in addition to the dependence on claim 1.

The Examiner next states that claims 5 through 7, 10, and 13 through 15 would be allowable if rewritten in independent form, at least if the obviousness-type double patenting provisional rejection is overcome. The applicants have rewritten claims 5 and 10 above for this purpose.

The Examiner finishes with comments on the applicant's arguments provided in the previous amendment as to the difficulty of the design of the dilator in view of the conditions in which it is used. The Examiner states that the knowledge involved is already known from the previous work undertaken to develop "peel and stick bandages" citing a commercial product by its trademark as an example. No doubt there is substantial public knowledge as to the nature of the peeling situation occurring during the removal of such a bandage by a user. However, this is not the peeling force issue referred to by the applicants in their previous amendment in

describing the problems that occur during use of their dilator invention due to peel forces and shear forces occurring at the interface between a user's skin and the adhesive provided to mount the dilator on that non-linear skin base. Rather, the peeling forces referred to by the applicant's arise primarily because of the presence of resilient means in the dilator that are used for providing an outward force on the skin over the nasal walls intended to be spread apart to increase the space therebetween during use without regard to any external forces such as bandage removal forces. No such peel forces, or at most very minimal peel forces, occur during use of a bandage in the situation in which there are no resilient means present therein to give rise to such peel forces which would only serve to give the unwanted result of separating the bandage from the user's skin. Thus, there is clearly no particular concern in designing a peel and stick adhesive bandage so as to have it maintain adherence to a user's skin in the presence of internally generated peel forces as there is for the dilator of the present invention, and therefore, the applicants respectfully submit that the example chosen by the Examiner as an indicator of the public knowledge of peel forces involved with dilators is not a measure of such knowledge.

In view of the foregoing, the applicants respectfully request the Examiner to reconsider the rejections of the claims in view of the amendments thereto, and further request these claims now be allowed as amended.

The Commissioner is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 11-0982.

Any inquiries regarding this application should be directed to Theodore F. Neils at (612) 339-1863.

Respectfully submitted,
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